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ABSTRACT

A study was conducted to assess the additional monies in circulation within Douglas County due to the existence of Umpqua Community College (UCC). Direct and indirect economic impact was calculated for the 1980-81 fiscal year based on UCC records and staff and student surveys conducted during February 1982. Study findings included the following: (1) while Oregonians invest over $3.7 million in UCC through state and local taxes, the college is directly responsible for returning almost six times this amount ($20,895,026) to the Oregon economy; (2) these additional monies in the state's economy are the sum of $5,682,926 in student expenditures, $2,312,900 in staff expenditures, $2,451,687 in college expenditures, and $10,447,513 in indirect expenditures due to respending in-state; (3) the total economic impact of UCC on the district was $15,746,846; (4) 1,370 full-time equivalent jobs existed for Oregonians because of UCC; (5) if not for the existence of UCC, 331 full-time and 2,203 part-time students would not attend college, and 683 full-time and 554 part-time students would attend an out-of-district college; and (6) UCC ranked 4th among Oregon's 13 community colleges in impact per tax dollar. Student and staff questionnaires, data transmittal forms, formulas used in calculating economic impact data, and a raw data summary are appended. (LAL)

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Economic Impact

Umpqua Community College

Its Economic Impact on Douglas County

JC 840 056

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By
Roger E. Haugen, Ph. D.

A Report Submitted To
Umpqua Community College
March 1982

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UMPQUA COMMUNITY COLLEGE:

ITS ECONOMIC IMPACT ON DOUGLAS COUNTY

By

Roger E. Haugen, Ph.D.

A Report

Submitted to

Umpqua Community College

March 1982

SUMMARY

The economic impact of Umpqua Community College is described by the following findings for the 1980-81 school year.

$20,895,026.00 were in circulation within the Oregon economy because of the existence of Umpqua Community College. This economic impact is the sum of the following:

(1)	In-state student expenditures because of the college	$ 5,682,926.00
(2)	In-state staff expenditures because of the college	$ 2,312,900.00
(3)	In-state college expenditures	$ 2,451,687.00
(4)	Indirect expenditures due to respending in-state	$10,447,513.00
	TOTAL STATEWIDE ECONOMIC IMPACT	$20,895,026.00

Umpqua Community College had an impact of $15,746,846.00 on its district's economy. This local district economic impact is the sum of the following:

(1)	In-district student expenditures because of the college	$ 5,392,037.00
(2)	In-district staff expenditures because of the college	$ 2,011,088.00
(3)	In-district college expenditures	$ 1,595,073.00
(4)	Indirect expenditures due to respending in-district	$ 6,748,648.00
	TOTAL DISTRICT ECONOMIC IMPACT	$15,746,846.00

While Oregonians invest over $3.7 million in Umpqua Community College through state and local taxes, the college is directly

responsible for returning almost six times this dollar amount (almost $21 million) to circulate within the Oregon economy.

1,370 full-time equivalent jobs for Oregonians (primarily in Douglas County) existed because of Umpqua Community College. 268 of these jobs were directly with the community college, while the rest were the result of money in circulation within the college district.

If Umpqua Community College were not here, approximately 331 full-time and 2,203 part-time students would not have attended college in Winter 1982, while 683 full-time and 554 part-time students would have attended an out-of-district college. This out-of-district college attendance would have created a monetary hardship on the commuting or resident student, as well as an unmeasured negative cash flow out of the college's district.

While it is stressed that community colleges must be justified on the basis of educational and social services provided at a reasonable cost, this study demonstrates the significant economic impact that Umpqua Community College has on its geographic district, as well as on the State of Oregon.

This study is significant because all Oregon Community Colleges completed the study using consistent procedures thereby producing comparable results for the same year. This is the first time all community colleges in a state have participated cooperatively in this type of study. The study's procedures and results were monitored by a statewide study group, as well as by an independent consultant.

Note: Summary adapted from The Impact of Community Colleges on Oregon's 1980-81 Economy, Mt. Hood Community College, 1982, pp. 79-80.

FOREWARD

In November of 1981, the presidents of Oregon's 13 public community colleges met and decided that it would be desirable for Oregon's community colleges to conduct a statewide economic impact study. In the face of a growing funding crisis, it was considered essential that the colleges make the public aware of the economic contributions the colleges make to the local and state economies and the consequences, both educational and economic, that major funding reductions would have on each college community and the state as a whole.

By November 30, 1981, each community college had appointed a campus coordinator for the study. At Umpqua Community College, Dr. Roger E. Haugen was hired to coordinate and conduct the research because it was believed that utilizing the services of an independent research consultant would enhance the credibility of the study findings.

At a meeting at Mt. Hood Community College on December 4, 1981, the study coordinators developed a research plan to be used as a guide at each college in order to insure comparability of results for incorporation in the statewide report that was to be prepared upon completion of the research at each institution.

By December 18, 1981, each college had established a study committee to assist the research coordinator in implementing and publicizing the study. At Umpqua Community College, the membership of this committee consisted of Leo Crisman and Nora Vitz, representing the administration, Inez Moore, representing the classified staff, Kris Carrico and Eleanor Wiese, representing the instructional staff, and Tom Miller, representing student government.

By February 19, 1982, all data collected at each college had been transmitted to Mt. Hood Community College for computer tabulation. On March 5, 1982, the study coordinators again met at Mt. Hood Community College to verify the validity and reliability of findings preliminary to returning to their respective institutions to write their reports.

Throughout the entire research period, Dr. Mary Kinnick, of the Portland firm of Kinnick and Associates, served as an independent auditor and consultant for the study, thus insuring the reliability and validity of the findings, both at the state and local levels.

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INTRODUCTION

The fundamental purpose of this study was to describe the economic impact of Umpqua Community College on its service area, Douglas County. For purposes of this study, economic impact was defined as the additional monies in circulation within Douglas County because of the existence of the College. This "college-related business volume" is a more accurate means of assessing the economic contribution of an institution to a local economy than simply examining the total institutional budget in terms of its dollar amount. It was recognized at the outset of the study, however, that the economic impact of the College on the local economy is of secondary importance to the educational, social, and cultural impact of the institution on its service area. For example, during the 1980-81 school year, which was used as the baseline for this study, the College served a total headcount enrollment of 12,252 students. During a time of severe recession, such as the local economy is currently experiencing, the fact that the College is providing training (and re-training) for citizens in the community becomes an increasingly significant factor in the fight for economic recovery in Douglas County. But, while the quality of the comprehensive educational services provided by the College remains the primary justification for its existence, it is essential, particularly during a period of economic recession, that the community understand the economic impact that the institution has on the region. As this study will make clear, any major curtailment of services

provided by the College would have a profound negative economic impact similar to that of closing or radically curtailing the operation of a major industry in the area.

Background of the Study

Conducting economic impact studies is neither a new nor a novel undertaking; economists have routinely conducted such studies in the business community for a number of years. Employing these methods is, however, a relatively recent innovation for planners in the area of post-secondary education. A 1971 study by John Caffrey and Herbert Issacs, entitled Estimating the Impact of a College or University on the Local Economy has served as the basic model for most subsequent research. Utilizing the Caffrey and Isaacs design, in 1977 the Maryland State Board for Community Colleges commissioned an economic impact study of that state's community colleges. And, following the Maryland lead, the Illinois Community College Board commissioned a similar study in 1979. Since that time, a number of states, regions, and individual colleges and universities have conducted or are presently conducting such studies. (Magarrell, 1982, p.8).

The present study has relied heavily upon these earlier efforts in developing a research plan and procedures for use at the local and state levels in Oregon. All of Oregon's 13 community colleges particpated in the study, with each institution following a similar plan and research strategy. Data gathered at each college have been incorporated in a state-level report.

DESIGN OF THE STUDY

Underlying the design and research procedures employed in a study of this type is the theory that for each dollar spent by a college, its staff, and students, there will be many people in the local economy who benefit directly or indirectly from the original expenditure. If, for example, the institution purchases supplies from a local business, the business realizes a profit, the salesperson receives a salary and/or a commission, and the manufacturers and wholesalers of the items realize their profits. All of these individuals, many of whom are involved in the local economy, respend their profits or salaries locally, thus generating additional income for others not directly concerned with providing goods or services to the institution. These spending and respending patterns illustrate the "multiplying effect" of the original spending, a concept important in determining the indirect impact of a college on a local economy. This concept of the multiplier is discussed in some detail below.

In addition to direct purchases by the institution, salaries paid to its staff are also largely spent in the local economy, with effects similar to those obtained for direct expenditures by the college. In the same fashion, monies spent by students for college-related activities, such as transportation, food, clothing, and housing, are also redistributed in the local economy.

Economic Impact: Direct and Indirect

It is clear from this that the total economic impact of a college

on its service area cannot be calculated by simply examining the formal operating budget of the institution; other measures are required if an accurate estimate of total economic impact is to be obtained.

To accomplish this, it is necessary to calculate two types of economic impact: direct and indirect. Direct economic impact consists of the sum of total college expenditures, including purchases of goods and services, payrolls, and college-related student spending. When the total direct impact has been obtained, it is possible to then calculate the indirect economic impact by employing a multiplier.

The multiplier used in this study is that developed by Caffrey and Isaacs in their 1971 study. It consists of the sum of two multipliers: (1) that developed to estimate the amount of purchases locally by local businesses, which refers to business caused by college, student, and staff expenditures, and (2) that developed to estimate local business volume, which refers to expenditures by local individuals (other than faculty, staff, or students) and which were made possible by original expenditures by the college. Caffrey and Isaacs recommend a multiplier for the first of between $.15 and $.30 and for the second of $.60 to $.80. To avoid over-estimating the indirect economic impact Umpqua Community College had on its service area, the smaller multipliers of $.15 and $.60 were combined to yield a multiplier for this study of $.75. That this is a conservative multiplier is further illustrated by the fact that both Oregon State University and the University of Oregon have utilized multipliers of $3.00 and $2.50 in economic impact studies conducted for the Oregon fisheries industry.

Limitation of the Study

It should be emphasized here that the measures of direct and indirect economic impact used in this study yield only a partial picture of the total impact that Umpqua Community College has on the local economy. Other measures, incorporated in the studies conducted in Illinois and Maryland, mentioned above, were omitted from this study in the belief that a conservative and admittedly partial estimate of the College's economic impact on its service area would be far less open to dispute or criticism. It would have been possible, for example, to collect data relating to the expansion of the in-district banks' credit base resulting from college-related deposits. The Federal Reserve System requires that a minimum amount of deposits be placed in reserves by banks. If the amount of College money on deposit with local banks had been collected from College records and the average amounts of deposits by faculty and staff had been gathered in the staff survey of spending patterns, an estimate of the amount of money available for loan, attributable to the presence of the College, could have been calculated. This, along with numerous other measures of economic impact, was not done, thus insuring a conservative valuation of total College impact on the local economy.

Data Collection and Sampling Procedures

Economic data utilized in this study were collected from College records for fiscal year 1980-81 and from student and staff surveys conducted during February, 1982. College records included the 1980-81

Annual Audit Report, the 1980-81 Vendor List, and the 1980-81 Payroll List. To make financial data collected from students and staff in 1982 compatible with College economic data from the 1980-81 period, data collected from students and staff were adjusted downward by a factor of 6.4 percent to allow for inflation during the intervening period. This deflation factor was provided by staff at Mt. Hood Community College and the study's outside consultant and auditor, Dr. Mary Kinnick, of Kinnick and Associates, Portland, Oregon.

During Winter term, 1982, a minimum of a 10 percent sample of all class sections at Umpqua Community College were surveyed using the instrument in Appendix A., below. Stratified random samples of course sections for each reimbursement code category were drawn from the Registrar's office computer printout for Winter term. To insure a 10 percent sample of students in each code category, total enrollments under each category were calculated and course section samples were drawn accordingly. Courses enrolling fewer than six students were excluded from the sample pool to avoid attempting to survey classes that were cancelled due to low enrollment. This strategy yielded a representative random sample and is in accordance with practices recommended by authorities such as F. N. Kerlinger in Foundations of Behavioral Research, (1973) and E. F. Lindquist in Design and Analysis of Experiments in Psychology and Education, (1953). When samples had been selected, the instrument was administered in classes during the week of 25 January 1982. Questionnaires were collected in classes by the instructors and returned directly to the project coordinator. When instruments had been returned to the coordinator, they were

screened to eliminate those that were not useable (blank, incomplete, or incorrectly filled out). Useable instruments were sent to Mt. Hood Community College for tabulation of results.

In the Lower Division Collegiate course area, 203 sections were identified as suitable for sampling; 21 were sampled, yielding a sample size of 10 percent. In the Vocational and Miscellaneous course area, which includes vocational preparatory, vocational supplementary, GED, and ABE, 178 sections were identified as suitable; 20 were sampled, yielding a sample size of 11 percent. In the General Self Improvement area, 92 sections were identified as useable; 10 were sampled, yielding a sample size of 11 percent. Under the Non-reimbursable code category, 7 sections were identifed as useable; 1 was sampled, yielding a sample size of 14 percent. A total of 765 students completed the survey instrument.

For the staff survey (see Appendix B), a 60 percent response rate was the desired minimum return. For a group this small, 130 individuals, a 60 percent return is considered essential if results are to be considered reliable (Kerlinger, 1973; Lindquist, 1953). Instruments were transmitted to all full-time staff through a combination of campus mail and personal distribution by the project coordinator during the week of 25 January 1982. Completed instruments were returned directly to the project coordinator, who checked them for useability. Of the 130 instruments which were distributed, 94 were returned, yielding a response rate of 72 percent.

When all survey instruments had been collected and were prepared for mailing, data gathered from College records were entered on Statewide Economic Impact Study Data Transmittal Forms (see Appendix C). All of these data were then sent to Mt. Hood Community College for data entry and computer processing.

Analysis of Data

The formulae used in calculating results of this study may be found in Appendix D. These formulae are those originally developed by Caffrey and Isaacs and subsequently modified in studies conducted in Illinois and Maryland. In addition, computer programs in use by Mt. Hood Community College provided additional breakdowns and analyses of raw data generated by the study. See Appendix E for these additional data.

FINDINGS OF THE STUDY

As the purpose of this study was to describe the total economic impact that each community college has on its district as well as the combined impact of all community colleges on the Oregon economy, the findings reported below include figures for Umpqua Community College and the combined figures for all community colleges in the state. For a complete breakdown for all colleges, the reader should see The Impact of Community Colleges on Oregon's 1980-81 Economy, published by Mt. Hood Community College in March, 1982.

In Table One, below, the direct statewide impact of student, staff, and college spending for Umpqua Community College and the combined total for all Oregon community colleges is presented:

Table 1

Statewide Direct Impact
1980-81

Source	In-state Student Spending	In-state Staff Spending	In-state College Spending	Total In-state Direct Impact
U.C.C.	5,682,926	2,312,900	2,451,687	10,447,513
All Colleges	150,554,639	65,563,308	60,377,384	276,495,331

The figures above represent only the direct impact of U.C.C. and all colleges combined on the state economy. Table 2, below, presents the total economic impact, both direct and indirect, for U.C.C. and all colleges combined.

Table 2

Statewide Impact: Direct and Indirect Combined
1980-81

Source	Total Economic Impact
U.C.C.	20,895,026
All Colleges	552,990,662

The total impact, both direct and indirect, of Umpqua Community College on the economy of Douglas County is described in Table 3 below.

Table 3

Total Impact of U.C.C.
On the Economy of Douglas County
1980-81

In-District Student Spending	In-District Staff Spending	In-District College Spending	Total In-District Direct Impact	Total Direct and Indirect District Impact
5,392,037	2,011,088	1,595,073	8,998,198	15,748,846

As noted earlier, the indirect economic impact is calculated by multiplying the direct impact by a factor (multiplier) of .75. This figure, which is $6,748,648 in the case of Umpqua Community College, is then added to the direct impact, yielding a total local economic impact of $15,748,846. This amount represents the total business-related income generated by Umpqua Community College in Douglas County for the 1980-81 period.

Umpqua Community College, like all of Oregon's other public community colleges, receives its revenue primarily from three sources: (1) state appropriations derived mainly from state income taxes, (2) local district property taxes, and (3) student tuition and fees. Considered just as an investment of tax monies, without weighing the importance of the educational opportunities available through the College, Umpqua Community College provides a very sound return indeed. Table 4, below, describes the 1980-81 operational revenues derived by U.C.C. from state and local tax sources in relation to the economic impact of the College per tax dollar.

Table 4

U.C.C. Impact Compared to Tax Dollars
1980-81

State and Local Tax Revenues	Statewide Impact	Impact Per Tax Dollar
3,731,409	20,895,026	5.60

Thus, for each tax dollar invested in Umpqua Community College, the institution generates nearly six dollars in business-related income for the state. At the level of Douglas County, UC.C.C. generates 4.2 dollars for each tax dollar invested, which also represents a substantial return on the original investment. That the people of Douglas County receive good value for their tax monies is indicated by the fact that the total impact per tax dollar for all of Oregon's community colleges is 5.40, slightly less than that generated by U.C.C. In fact, U.C.C. ranks fourth among Oregon's 13 community colleges in impact per tax dollar.

The community colleges throughout Oregon employ both full-time and part-time staff. Table 5 describes the number of full-time equivalent jobs provided at Umpqua Community College as well as the combined totals for all Oregon community colleges for 1980-81. In addition, the number of jobs created indirectly, both locally and for the State as a whole, is also indicated. The number of indirect jobs was found by using Caffrey and Isaacs' job coefficient (multiplier) of .00007 times the total economic impact, both for U.C.C. at the local level and for the combined impact of all community colleges in the State. Examples of such college related indirect jobs are retail store employees and public officials. While no one job may be directly attributable to college expenditures, a portion of many may be traced to the spending of students, staff, and the institution. These fractional amounts are combined into the reported full-time equivalent jobs.

Table 5

Jobs Derived From Colleges
1980-81

Source	College FTE Jobs	College Related Indirect Jobs	Total FTE Jobs
U.C.C.	268	1,102	1,370
All Colleges	6,657	29,342	35,999

For Douglas County, this means that the equivalent of 1,370 jobs would be lost to the local economy if Umpqua Community College did not exist. Any major reduction in services provided by the College would also have a serious negative impact on employment opportunities in the County.

If Umpqua Community College did not exist, or if it were to sharply reduce its present level of service to the people of Douglas County, significant numbers of students would attend or would attempt to attend a college outside the area. No clear estimate of the negative financial impact this would have on the economy of Douglas County has been calculated, but the loss would be substantial. From an educational perspective, the negative consequences would be even greater: many students would simply be unable to afford to leave the area to attend school, with the result that many would be unable to secure occupational or career training of any kind at the postsecondary level. The negative effects this would have on the futures of many young people in Douglas County, as well as for many of those in older age groups who require re-training for new careers are clear: their economic and career prospects would be severely limited. Table 6, below, describes the enrollment alternatives identified by students at Umpqua Community College during Winter term, 1982, when they were asked what they would do if the College did not exist.

Table 6

U.C.C. Enrollment Alternatives
Winter, 1982

Students Who Would Not Attend College		Students Who Would Attend An Out-of-District College	
Full-Time	Part-Time	Full-Time	Part-Time
331	2,203	683	554

Note: Full-time and Part-time in the table refers to the numbers of students in each of these categories who indicated they would either not attend college at all or would go out-of-district.

DISCUSSION

As this study has indicated, the economic impact of Umpqua Community College on Douglas County is substantial. At least $15,746,846.00 in business-related spending was generated by the College in 1980-81. And, had other measures been used in the study, the amount would have been even greater; so the estimate reported here is actually quite conservative. It was also noted that for each dollar of state and local tax revenue allocated to the College, the institution returned $5.40 to the Oregon economy, representing a very good return on the investment of taxpayers. In addition to this, it was estimated that the presence of the College accounted for the full-time equivalent of 1,370 jobs in the local economy.

These data represent only a partial picture of the economic impact that the College has on its service area. In providing low cost, high quality educational opportunities for local citizens, the College saves parents and students considerable money that would otherwise be spent in attending schools out of the area. It also provides job training and continuing education services for local businesses which would otherwise have to provide it themselves, send their staffs away for training, or recruit personnel from out of the area. Similarly, the presence of the College in the community is an attractive stimulus for business and industry considering the possibility of locating in this area. None of these factors were formally considered in this study, but they are vital components of the total economic impact that Umpqua Community College has on Douglas County.

Finally, it should be noted that, despite the importance of all of these economic factors, the College does not justify its existence on the basis of the impact it has on the local economy. The greatest contributions that Umpqua Community College makes to Douglas County are in the educational opportunities that it provides for the citizens of the area; these opportunities for personal growth and development, and the consequences they have for the enrichment of life in the community, cannot be readily calculated and translated into economic terms. They are nonetheless the real foundation upon which the College is built; the economic benefits associated with the presence of the College in the community are ultimately important only because they provide a powerful and practical argument for continued community support of the institution.

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APPENDIX A

UMPQUA COMMUNITY COLLEGE
ECONOMIC IMPACT STUDY
STUDENT QUESTIONNAIRE

Your responses to the following questions will help describe the economic impact of Umpqua Community College on its district and on the State of Oregon. Your answers will be combined with others to be used only for statistical purposes; your individual responses will be kept completely confidential. If you do not know the exact answer to a specific question, please give your best estimate.

Thank you for your help.

I.S. Hakanson

I.S. "Bud" Hakanson
President, Umpqua Community College

NOTE: If you have completed this questionnaire in another class, please do NOT complete this one. Thank you.

1. Do you live within Umpqua Community College's district boundaries (Douglas County)?

   ____ Yes ____ No

2. Are you enrolled at Umpqua Community College for...
   (check only ONE response)

   ____ 12 or more credits this term?

   ____ 11 or fewer credits this term?

   ____ only non-credit courses?

3. Estimate your expenses in each category BECAUSE you are attending Umpqua Community College. (If none, use $0.00.)

   Per Month Expenses

   $_____ Housing (rent or house payment, plus taxes, insurance and utilities)

   $_____ Transportation (if car, include gas, maintenance and insurance)

   $_____ Food

$ _____ Other expenses (such as child care, clothing, insurance, etc.)

Per Term Expenses

$ _____ Tuition and Fees

$ _____ Books and School Supplies

4. Estimate the percentage of the total of THE ABOVE expenditures spent:

___% inside the college district ____% inside the state

5. If Umpqua Community College were not here, I would:

___ not attend college

___ attend college outside Umpqua Community College's present district

APPENDIX B

UMPQUA COMMUNITY COLLEGE
ECONOMIC IMPACT STUDY
STAFF QUESTIONNAIRE

Your responses to the following questions will help describe the economic impact of Umpqua Community College on its district and on the State of Oregon. Your answers will be combined with others to be used only for statistical purposes; your individual responses will be kept completely confidential.

Thank you for your help.

I. S. "Bud" Hakanson

---

1. Do you live within Umpqua Community College's district boundaries (Douglas County)?

   ____ Yes ____ No

2. What is your college status?

   ____ Faculty (including professional support staff)

   ____ Staff (classified)

   ____ Administration

3. Estimate the percent of your total disposable income which is spent:

   A. Inside the college district ____%

   B. Inside the state ____%

Return to: Roger Haugen
c/o Leo Crisman
Instructional Services Office

Due Date: 29 JANUARY 1982

APPENDIX C

ECONOMIC IMPACT STUDY
DATA TRANSMITTAL FORM

UMPQUA COMMUNITY COLLEGE
College

ROGER E. HAUGEN
Study Coordinator

FOR: Business Office

(A) LOCAL MULTIPLIER = 0.15 from CAFFREY-ISAACS-or-ONE

LOCALLY-JUSTIFIED COFEFFICIENT (0.15) EXTENT BUSINESSES PURCHASE FROM LOCAL SOURCES

(B) LOCAL MULTIPLIER = 0.60 from CAFFREY-ISAACS-or-TWO

LOCALLY-JUSTIFIED COFEFFICIENT (0.60) REPRESENTING THE EXTENT INDIVIDUALS SPEND AND RESPEND THEIR INCOMES LOCALLY

(C) PERCENTAGE OF TOTAL COLLEGE EXPENDITURES SPENT LOCALLY = (0.54)... SOURCE --- an estimation of percent spent in-district from a sample of three different month's expenditures

(D) PERCENTAGE OF TOTAL COLLEGE EXPENDITURES SPENT IN-STATE = (0.83)... similar SOURCE to (6) above. This is for STATEWIDE IMPACT.

(E) TOTAL COLLEGE = ($6,413,955.00)... SOURCE --- the END OF FISCAL YEAR AUDIT. (include CAPITAL AND GENERAL FUNDS)

(F) GROSS SALARIES = ($3,460,115.00)... SOURCE --- BUSINESS RECORDS describing SALARIES of all college personnel (does not include employer-paid fringes).
PAID TO STAFF

(G) DISPOSABLE INCOME OF ALL = ($2,386,301.00)-SOURCE---BUSINESS RECORDS for money paid to staff not including DEDUCTIONS for TAXES and RETIREMENT.

(H) STATEWIDE MULTIPLIER = 0.15 from CAFFREY-ISAACS-or- Statewide - JUSTIFIED
ONE

COEFFICIENT (0.15) REPRESENTING EXTENT BUSINESSES PURCHASE FROM STATE SOURCES

(I) STATEWIDE MULTIPLIER = 0.60 from CAFFREY-ISAACS-or- Statewide-JUSTIFIED
TWO

COEFFICIENT (0.60) REPRESENTING EXTENT INDIVIDUALS SPEND AND RESPEND THEIR INCOMES WITHIN THE STATE

(J) COEFFICIENT FOR FULL-TIME JOBS PER DOLLAR OF DIRECT LOCAL EXPENDITURE = 0.00007 from CAFFREY-ISAACS-or- SEPARATELY-JUSTIFIED

COEFFICIENT (0.00007)

Person providing data: BETTY GUBSER, DIRECTOR OF FISCAL AFFAIRS, U.C.C.

Source (please provide details for each data item):

(A) CAFFREY-ISAACS

(B) CAFFREY-ISAACS

(C) ANNUAL AUDIT, 1980-81 & U.C.C. VENDOR LIST, 1980-81

(D) ANNUAL AUDIT, 1980-81 & U.C.C. VENDOR LIST, 1980-81

(E) ANNUAL AUDIT, 1980-81

(F) PAYROLL LIST, 1980-81 & ANNUAL AUDIT, 1980-81

(G) PAYROLL LIST, 1980-81

(H) CAFFREY-ISAACS

(I) CAFFREY-ISAACS

(J) CAFFREY-ISAACS

NOTE: FOR ITEM C ABOVE -- OUR COMPUTER CENTER HAD COMPLETE DATA FOR THAT FISCAL YEAR, SO WE DID NOT ESITMATE A PERCENTAGE FIGURE DERIVED FROM A SAMPLE OF THREE DIFFERENT MONTH'S EXPENDITURES.

Attach memos, etc., which provide further description of data sources and compilation procedures.

ECONOMIC IMPACT STUDY
DATA TRANSMITTAL FORM

UMPQUA COMMUNITY COLLEGE
College

ROGER E. HAUGEN
Study Coordinator

FOR: REGISTRAR'S -or- INSTITUTIONAL RESEARCH OFFICE

(A) NUMBER
FULL-TIME = (1007)... SOURCE --- College records for Fall 1980, 4th WEEK enrollment (headcount for students taking 12 or more credits).
STUDENTS

(B) NUMBER
PART-TIME = (3806)... SOURCE --- College records for Fall 1980, 4th WEEK enrollments (headcount for students taking 11 or less credits).
STUDENTS

Person providing data: LARRY SHIPLEY, REGISTRAR

Source (please provide details for each data item):

(A) FORM 581-3157, ENROLLMENT REPORT FORM, 4th WEEK, FALL 1980

(B) FORM 581-3157, ENROLLMENT REPORT FORM, 4th WEEK, FALL 1980

ECONOMIC IMPACT STUDY
DATA TRANSMITTAL FORM

UMPQUA COMMUNITY COLLEGE
College

ROGER E. HAUGEN
Study Coordinator

FOR: PERSONNEL OFFICE

(A) NUMBER
COLLEGE = (268)...SOURCE--- College records for Fall 1980.
STAFF Report the number of FTE.

Person providing data: JACKY McKINNEY, ASSISTANT TO DEAN OF INSTRUCTIONAL SERVICES/COLLEGE PERSONNEL OFFICER

Source (please provide details for each data item:

(A) PAYROLL LIST, FALL, 1980 (Generated by QUIZ PROGRAM, U.C.C. COMPUTER CENTER

FTE FOR PART-TIME PERSONNEL WERE CALCULATED AS FOLLOWS:

PROFESSIONAL STAFF (INSTRUCTORS, SUPPORT PROFESSIONALS): For instructors, 15 credit hours equals equivalent of FT load. Total credit hours taught by PT personnel was divided by 15 to equal FTE. No PT professional support staff were employed during this period.

CLASSIFIED STAFF (CLERICAL, CUSTODIAL, ETC.): 40 hours per week equals equivalent of FT employment. Total hours worked by PT classified staff was divided by 40 to equal FTE.

WORK STUDY: 40 hours per week equals equivalent of FT employment. Total hours worked by Work Study students was divided by 40 to equal FTE employment.

NOTE: FOR CLASSIFIED AND WORK STUDY PERSONNEL, FTE WAS ACTUALLY CALCULATED BY EMPLOYING 20-DAY WORKING MONTH AS BASIS: TOTAL HOURS WORKED PER MONTH DIVIDED BY 160 HOURS TO EQUAL FTE EMPLOYMENT

ECONOMIC IMPACT STUDY
DATA TRANSMITTAL FORM

UMPQUA COMMUNITY COLLEGE
College

ROGER E. HAUGEN
Study Coordinator

Person providing data: BETTY GUBSER, DIRECTOR OF FISCAL AFFAIRS, U.C.C.

1980-81 STATE TAX REVENUES FOR DISTRICT: $1,968,367.00

1981-81 LOCAL PROPERTY TAX REVENUE FOR DISTRICT: $1,763,042.00

SOURCE FOR BOTH ITEMS: ANNUAL AUDIT REPORT, 1980-81

ECONOMIC IMPACT STUDY
DATA TRANSMITTAL FORM

UMPQUA COMMUNITY COLLEGE
College

ROGER E. HAUGEN
Study Coordinator

Person providing data: LARRY SHIPLEY, REGISTRAR

UNDUPLICATED HEADCOUNT ENROLLMENTS FOR WINTER, 1982:

FULL-TIME

LOWER DIVISION COLLEGIATE:	474
VOCATIONAL EDUCATION:	539
OTHER REIMBURSABLE:	1
NON-REIMBURSABLE:	None
TOTAL:	1,014

PART-TIME

LOWER DIVISION COLLEGIATE:	401
VOCATIONAL EDUCATION:	654
OTHER REIMBURSABLE:	1,566
NON-REIMBURSABLE:	136
TOTAL:	2,757

SOURCE: SUPPLMENTARY DATA REPORT FOR WINTER TERM 1981-82,
UNDUPLICATED ENROLLMENT.

ECONOMIC IMPACT STUDY
SUPPLEMENTARY DATA TRANSMITTAL FORM

1. ANNUAL UNDUPLICATED HEADCOUNT ENROLLMENT 1980-81: 12,252

SOURCE: U.C.C. Computer Center, QUIZ PROGRAM: UNDUP HC, SUMMER TO SPRING, 1980-81

2. SECTIONS OF CLASSES SAMPLED, INCLUDING BREAKDOWN BY REIMBURSEMENT CATEGORY AND SIZE OF SAMPLES:

   A. Lower Division Collegiate (Transfer): 203 sections, 21 sampled, equals sample size of 10%

   B. Vocational and Misc. (Includes Vocational preparatory, vocational supplementary, GED and ABE): 178 sections, 20 sampled, equals sample size of 11%

   C. General Self-Improvement (reimbursable): 92 sections, 10 sampled, equals sample size of 11%

   D. Nonreimbursable: 7 sections, 1 sampled, equals sample size of 14%

SOURCE: U.C.C. WINTER TERM ROSTER, 01/18/82

3. Percentage response to staff questionnaire:

   A. Administration: 19 total, 14 returns, 74% return rate.

   B. Classified: 51 total, 31 returned, 61% return rate.

   C. Instructional: 60 total, 49 returns, 82% rate.

SOURCE: PAYROLL LIST, 1981-82.

DATA FOR ITEMS ONE, TWO AND THREE ABOVE COLLECTED BY ROGER E. HAUGEN, ECONOMIC IMPACT STUDY COORDINATOR.

APPENDIX D

FORMULAE USED IN CALCULATING ECONOMIC IMPACT DATA

(1) LOCAL ECONOMIC IMPACT = DIRECT ECONOMIC IMPACT + INDIRECT ECONOMIC IMPACT = COLLEGE-RELATED LOCAL EXPENDITURES

(2) DIRECT ECONOMIC IMPACT = LOCAL EXPENDITURES BY COLLEGE + LOCAL EXPENDITURES BY STAFF + LOCAL EXPENDITURES BY STUDENTS

(3) INDIRECT ECONOMIC IMPACT = PURCHASES FROM LOCAL SOURCES BY LOCAL BUSINESSES IN SUPPORT OF THEIR COLLEGE-RELATED BUSINESS + LOCAL BUSINESS VOLUME STIMULATED BY DIRECT ECONOMIC IMPACT (Local Recirculation of expenditures)

= LOCAL MULTIPLIER ONE X DIRECT ECONOMIC IMPACT + LOCAL MULTIPLIER TWO X DIRECT ECONOMIC IMPACT

(4) LOCAL EXPENDITURES BY COLLEGE = PERCENTAGE OF TOTAL COLLEGE EXPENDITURES SPENT LOCALLY X (TOTAL COLLEGE EXPENDITURES - GROSS SALARIES PAID TO STAFF)

(5) LOCAL EXPENDITURES BY STAFF = LOCAL EXPENDITURES BY IN-DISTRICT STAFF + LOCAL EXPENDITURES BY OUT-OF-DISTRICT STAFF

(6) LOCAL EXPENDITURES BY IN-DISTRICT STAFF = DISPOSABLE INCOME OF ALL STAFF X PERCENTAGE OF STAFF IN-DISTRICT X PERCENTAGE IN-DISTRICT STAFF SPEND IN-DISTRICT

(7) LOCAL EXPENDITURES BY OUT-OF-DISTRICT STAFF = DISPOSABLE INCOME OF ALL STAFF X PERCENTAGE OF STAFF OUT-OF DISTRICT X PERCENTAGE OUT-OF-DISTRICT STAFF SPEND IN-DISTRICT

(8)	LOCAL EXPENDITURES BY STUDENTS	=	NUMBER FULL-TIME STUDENTS	X	AVERAGE EXPENDITURES FULL-TIME STUDENTS	X	PERCENTAGE FULL-TIME STUDENTS SPEND IN-DISTRICT	
		+	NUMBER PART-TIME STUDENTS	X	AVERAGE EXPENDITURES PART-TIME STUDENTS	X	PERCENTAGE PART-TIME STUDENTS SPEND IN-DISTRICT.	
(9)	STATEWIDE DIRECT ECONOMIC IMPACT	=	STATEWIDE EXPENDITURES BY COLLEGE	+	STATEWIDE EXPENDITURES BY STAFF	+	STATEWIDE EXPENDITURES BY STUDENTS	
(10)	STATEWIDE INDIRECT ECONOMIC IMPACT	=	STATEWIDE MULTIPLIER	X	STATEWIDE DIRECT ECONOMIC IMPACT			
(11)	STATEWIDE ECONOMIC IMPACT (for one college)	=	STATEWIDE DIRECT ECONOMIC IMPACT	+	STATEWIDE INDIRECT ECONOMIC IMPACT			
(12)	TOTAL STATEWIDE ECONOMIC IMPACT (all community colleges)	=	sum of	STATEWIDE ECONOMIC IMPACT	for each college			
(13)	LOCAL JOBS DUE TO COLLEGE PRESENCE	=	NUMBER COLLEGE STAFF	+	COEFFICIENT FOR FULL-TIME JOBS PER DOLLAR OF DIRECT LOCAL EXPENDITURES	X	LOCAL ECONOMIC IMPACT	

APPENDIX E

RAW DATA SUMMARY

This study surveyed 765 students and 94 staff at Umpqua Community College, collected college financial, personnel, and enrollment information. The following subsections describe the findings from each data source:

A. STUDENT SURVEY (FT = full-time, PT = part-time)

1)	Number of Students Responses	... FT Students	534
		... PT Students	211
2)	Percentage of Winter 1982 Students Responding	... FT Students	52.7%
		... PT Students	7.7%
		... Total	20.3%
3)	Percentage of Student Respondents Living In-District		98.8%
4)	Student Plans If College Didn't Exist (% of Winter 1982 students):		
	a) not attend college	... FT Students	32.6%
		... PT Students	79.9%
		... All Students	46.0%
	b) attend college outside district		
		... FT Students	67.4%
		... PT Students	20.1%
		... All Students	54.0%
	c) attend college inside district		
		... FT Students	NA
		... PT Students	NA
		... All Students	NA
5)	Average Annual College-Related Expenditures by	FT Students --	$2,311
6)	Average Percentage Full-time Students Spent In-District		94.45%
7)	Average Annual College-Related Expenditures by	PT Students --	$ 883

8)	Average Percentage Part-time Students Spent In-District	94.98%
9)	Local Expenditures by Students	$5,392,037
10)	Average Percentage Full-time Students Spent In-State	99.97%
11)	Average Percentage Part-time Students Spent In-State	99.81%
12)	Statewide Expenditures by Students	$5,682,926
13)	Percentage of Winter 1982 Course Sections Surveyed	10.83%

C. STAFF SURVEY

1)	Number of College Staff Responding	94
2)	Percentage of Winter '82 Staff Responding	72.00%
3)	Percentage of Staff In-District	98.90%
4)	Average Percentage In-District Staff Spent In-District	84.78%
5)	Local Expenditures by In-District Staff	$2,000,851
6)	Percentage Staff Out-of-District	1.10%
7)	Average Percentage Out-of-District Staff Spent In-District	39.00%
8)	Local Expenditures by Out-of-District Staff	$ 10,237
9)	Local Expenditures by Staff	$2,011,088
10)	Average Percentage In-District Staff Spent In-State	96.89%
11)	Statewide Expenditures by In-District Staff	$2,286,654
12)	Average Percentage Out-of-District Staff Spent In-State	99.99%
13)	Statewide Expenditures by Out-of-District Staff	$ 26,246
14)	Statewide Expenditures by Staff	$2,312,900

D. COLLEGE INFORMATION

1)	Number of College Staff (Fall '80)	268
2)	Number of Full-Time Students (Fall '80)	1,007
3)	Number of Part-Time Students (Fall '80)	3,806
4)	Annual Unduplicated Headcount (1980-81)	12,252
5)	Total College Expenditures (1980-81)	$6,413,955
6)	Gross Salaries Paid to Staff (1980-81)	$3,460,115
7)	Disposable Income of All Staff (1980-81)	$2,386,301
8)	Percentage of Total College Expenditures Spent Locally	54.00%
9)	Percentage of Total College Expenditures Spent In-State	83.00%
10)	State Tax Revenues (1980-81)	$1,968,367
11)	Local Property Tax Revenues (1980-81)	$1,763,042
12)	Local Multiplier One (represents extent businesses purchase from local sources)	0.15
13)	Local Multiplier Two (represents extent individuals respend incomes locally)	0.60
14)	Job Coefficient (represents full-time jobs per dollar of local economic impact - 0.000070.)	.00007
15)	Statewide Multiplier (represents extent businesses and individuals respend in-state)	1.00
16)	Number of Full-time Students (Winter '82)	1,014
17)	Number of Part-time Students (Winter '82)	2,757
18)	Number of Course Sections (Winter '82)	480

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